

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-7 are pending in this application, Claim 1 having been presently amended. Support for amended Claim 1 can be found, for example, in the original claims, drawings, and specification as originally filed.¹ No new matter has been added.

In the outstanding Office Action, Claims 1, 2, 3, and 7 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nishigaki (U.S. Patent No. 7,009,722) in view of Hiroshi (JP 2000-032241); and Claims 4-6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Nishigaki and Hiroshi further in view of Kato (U.S. Publication No. 2001/0012397).

Applicants acknowledge with appreciation the courtesy of Examiners Woldemariam and Ahme in granting an interview in this case with Applicants' representatives on March 7, 2008, during which time the issues in the outstanding Office Action were discussed as substantially summarized hereinafter and also on the Interview Summary Sheet. No agreement was reached during the interview pending a formal response to the outstanding Office Action.

In response to the rejection of Claims 1, 2, 3, and 7 under 35 U.S.C. § 103(a) as unpatentable over Nishigaki in view of Hiroshi, Applicants respectfully submit that amended independent Claim 1 recites novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1 is directed to an image processing apparatus including, *inter alia*:

...an image storage unit configured to store a plurality
of types of image data in a first data format that is compressed;

¹ See page 7, lines 3-10 and page 13, line 9 to page 14, line 3 of the specification.

a data format converter configured to convert the first data format of the image data to a second data format being a general data format which can be read by a general data format converter including general image processing functions; and

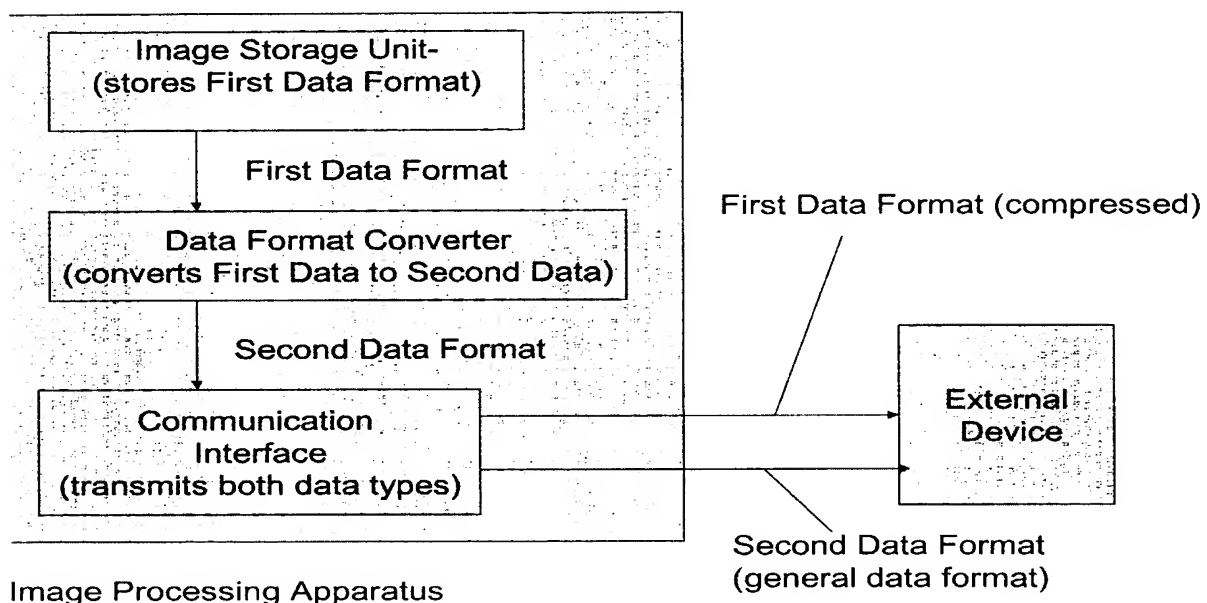
a communicator including

a communication interface configured to transmit the image data of the first data format together with the image data of the second data format as reference image data for the image data of the first data format to an external device including the general data format converter.

Thus, Applicants' Claim 1 requires a first data format that is compressed, a second data format that is obtained by a conversion of the first data format, the second data format is a general data format which can be read by general data format converter that includes general image processing functions, and a communication interface configured to transmit the first data format together with the second data format as reference image data for the image data of the first data format to an external device including the general data format converter.

An illustrative diagram of Applicants' invention is shown below for convenience.

Applicants' Invention



Thus, in an exemplary embodiment of Applicants' invention, if an external device receiving the data has a general processing function, it is possible to easily identify the contents of the received data and use the stored data without degradation of the data. Consequently, an external device advantageously improves the usability of the data such that the reference image data can be used as backup data.² Further, the compressed data can be expanded to printing data for use by a copying machine, printer, or fax.³

Because various types of image data are stored on a hard disk drive 5, and any of the data is processed in a specific format, even if the image data is transferred to an external device (for example PC 19 in Figure 1) the external device may not, in many cases, handle the format of the image data, and it cannot be easily determined which type of data the image data is. However, in Applicants' invention, if an external device (e.g. PC 19) receiving the stored data has a general processing function, (i.e., can process the claimed general data format) it is possible to identify the contents of the received stored data, and it is also possible to obtain the data, having been processed in various types of compression formats, stored in the hard disk drive 5 without degradation of the data.⁴

Page 2 of the outstanding Office Action cites Nishigaki as describing "a data format converter configured to convert the first data format of the image data to a second data format being a general data format." However, Nishigaki only describes a first compression means for accomplishing compression by a first compression method which allows image editing in a compressed state, and a second compression means for accomplishing compression by a second compression method which does not allow image editing in a compressed state. After image data has been compressed by either the first compression method, or the first

² See page 27, lines 11-21 of the specification.

³ See page 12, lines 11-15 of the specification.

⁴ See page 13, lines 9-24 of the specification.

compression method followed by the second compression method, the data is outputted to be stored in frame memory 22.⁵

Thus, in Nishigaki either compressed image data created by the first compression method or compressed imaged data created by first compression method and further compressed by the second compression method is transmitted to memory 22. However, Nishigaki does not describe that the first or second compression method creates a “second data format being a general data format which can be read by a general data format converter including general image processing functions,” as in Applicants’ amended Claim 1.

Further, page 6 of the outstanding Office Action acknowledges that Nishigaki fails to disclose or suggest a communication interface configured to transmit the image data of the first data format together with the image data of the second data format as reference image data for the image data of the first data format to an external device, as in Applicants’ independent Claim 1. In an attempt to cure the above-noted deficiency, the Office Action cites the abstract and paragraphs [0016] and [0018] of Hiroshi.

Applicants submit that Hiroshi fails to disclose or suggest “a data format converter configured to convert the first data format of the image data to a second data format being *a general data format which can be read by a general data format converter including general image processing functions*” and “a communication interface configured to transmit the image data of the first data format *together with* the image data of the second data format as reference image data for the image data of the first data format to an external device *including the general data format converter*,” as recited in Applicants’ amended Claim 1.

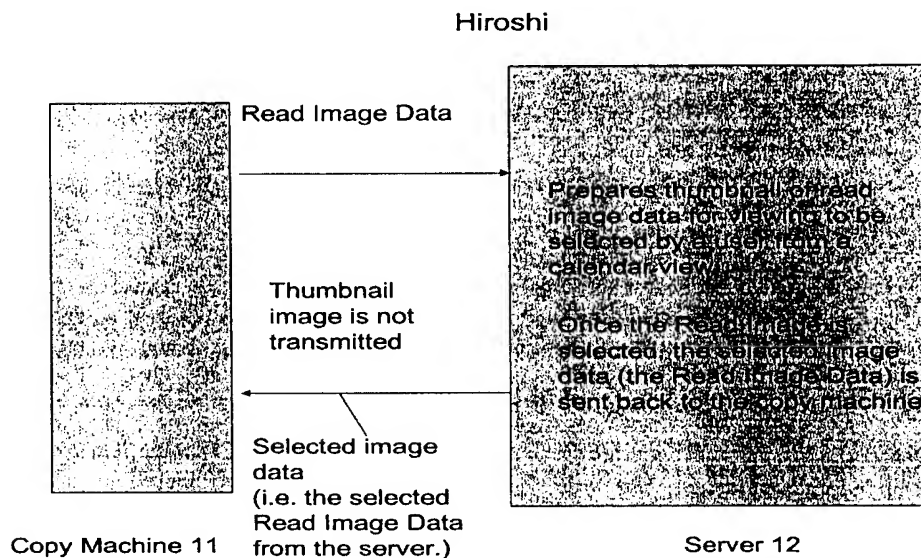
As described in Applicants’ Background of the Invention section, Hiroshi is directed to a system including a server 12 connected to a copying machine 11 via an intranet which backs up copied data in a mass-storage device of the server 12. In Hiroshi, a part of text data

⁵ See Nishigaki at column 4, lines 45-49 and 56-61.

(e.g., thumbnail images on a header page) stored in the mass-storage device and additional data (operating mode, document and paper conditions, number of sheets to be copied, or image processing conditions for copying) are read out and displayed according to a request from a user. The data to be reused is selected from the displayed text data, and the selected data is transferred to the copying machine 11.⁶

However, when the printing data of the copying machine 11 is to be compressed and stored in the mass-storage device such as a hard disk drive (HDD), the data is generally formatted specifically to the printing process of the copying machine so as to allow increased processing efficiency. Therefore, even if the image stored in the specific format in the HDD of the copying machine is read out by an external device that backs up the image, the contents of the image are impossible to be viewed unless a unit for decoding the specific format is provided. In particular, when different types of image data are stored in the HDD of the copying machine, pieces of data to be stored have been processed in various types of formats, which makes it further difficult to view the different types of data.⁷

An illustrative diagram of the device in Hiroshi is shown below.



⁶ See page 1, line 24 to page 2, line 11 of the specification.

⁷ See page 2, lines 12-24 of the specification.

Further, the abstract of Hiroshi describes that

A copying machine 11 sends out the processing condition of a user ID and a copying density, etc., and the read form of an original through an intranet to a server device 12 together with the image data as additional data at the time of a copying processing. Simultaneously with the storage of the image data in large capacity storage devices 13 and 16, the server device 12 stores the storage address and the other additional data in a data base inside a hard disk device for the respective user IDs so as to be retrieved and read, prepares the thumbnail image of the image data corresponding to the read form and displays and outputs it at a calendar view so as to easily select the image data at the time of reutilizing them and sends out the selected image data to the copying machine 11.

Thus, Hiroshi merely describes that the server device 12 stores the storage address of other additional data in a database and prepares thumbnail images 61 which correspond to the image data. Once a thumbnail image 61 is selected, *the selected image data* is sent to a copying machine 11. The server device 12 is described as only sending out the “selected image data,” which requires a specific, unique processing function, to the copy machine 11. The selected image data and the thumbnail image 61 are not both transmitted to the copy machine 11. Thus, Hiroshi does not describe transmitting image data of a *first data format (a compressed data format) together with the image data of a second data format* (the second data format, being a general data format which can be read by a general data format converter that includes general processing functions, and is generated from a conversion of the first data format) as reference image data for the image data of the first data format to an external device including the general data format converter, as in Applicants’ Claim 1.

Hiroshi also does not describe “an external device including the general data format converter,” as in Applicants’ Claim 1. Hiroshi does not describe that the copy machine 11 includes a general data format converter or any other type of converter. Further, in Hiroshi, the data conversion takes place in the server 12, and the image processing portion 29 in the

copy machine 11 performs data compression of the image data it transmits to the server 12.⁸

Thus, in Hiroshi, data compression takes place in one unit, the copy machine 11, and creation of a thumbnail image 61 occurs in another unit, the server 12. Thus, two units are used to perform data compression and conversion.

In contrast, in Applicants' Claim 1, all image processing occurs in the information processing apparatus. Assuming arguendo, that the copy machine 11 and server 12 comprise Applicants' "information processing apparatus," Hiroshi does not transmit the selected image data and the thumbnail image 61 to an *external device*. In Hiroshi, the thumbnail image 61 is not transmitted at all but is merely stored in the server 12, and the selected image data is sent to the copier 11, which is not an "external device" if the information processing apparatus is comprised of the copy machine 11 and server 12.

Accordingly, Applicants submit that Claim 1 (and all claims depending thereon) patentably distinguishes over the references and respectfully request the rejection of Claims 1, 2, 3, and 7 under 35 U.S.C. § 103(a) as unpatentable over Nishigaki in view of Hiroshi be withdrawn.

In response to the rejection of Claims 4-6 under 35 U.S.C. § 103(a) as unpatentable over Nishigaki in view of Hiroshi further in view of Kato, Applicants respectfully submit that Kato fails to cure any of the above-noted deficiencies in Nishigaki and Hiroshi. Further, Applicants respectfully submit that Claims 4-6 are dependent on independent Claim 1, and are thus believed to be patentable for at least the reasons discussed above.

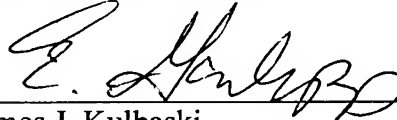
Accordingly, Applicants respectfully request the rejection of Claims 4-6 under 35 U.S.C. § 103(a) be withdrawn.

⁸ See Hiroshi at paragraph [0023].

Consequently, in view of the present amendment, and in light of the above discussion, the pending claims as presented herewith are believed to be in condition for formal allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



James J. Kulbaski
Attorney of Record
Registration No. 34,648

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)

Derek P. Benke
Registration No. 56,944

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Edwin D. Garlepp
Registration No. 45,330